



**Illinois Society of Professional Engineers - University of Illinois**  
**College of Engineering**  
**Professional Engineer On-Line Seminars**



**INSTRUCTIONS:**

1. View the on-line seminar.
2. Complete the quiz below.
3. Complete the "Engineer Information" section.
4. Make a copy for your records.
5. Mail the quiz along with your \$20 payment (credit card information or check payable ISPE) to:  
ISPE, 100 East Washington Street Springfield, IL 62701.

If you score an 80% or better on the quiz, you will receive your certificate within 4 weeks. If you fail to earn an 80% score, the quiz will be returned to you and you will have the opportunity to retake it.

Each seminar/quiz is worth 1 Professional Development Hour.

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**QUIZ:** 04-05  
**TOPIC:** The challenge of designing for shear: large-scale tests on prestressed girders  
**PRESENTER:** Prof. Dan Kuchma

1. The load tests of deep concrete girders were performed by Professor Dan Kuchma at
  - a) The University of Minnesota.
  - b) The University of Wisconsin-Madison.
  - c) Purdue.
  - d) The University of Illinois at Urbana-Champaign.
2. The research on these beams was partially funded by NCHRP, the National Cooperative Highway Research Program.  
(circle) TRUE FALSE
3. AASHTO LRFD currently limits the design compressive strength of high-strength concrete to  $f'_c = 10,000$  psi.  
(circle) TRUE FALSE
4. The tested concrete girders are
  - a) prestressed.
  - b) reinforced with rebar and prestressed.
  - c) reinforced with rebar.
5. Research on these tests investigates
  - a) Loading.
  - b) Instrumentation.
  - c) Concrete strength.
  - d) Shear stress levels.
  - e) Size effects.
  - f) all of the above.
6. Instrumentation used for these tests includes
  - a) a Zurich gage.
  - b) Krypton coordinate measurement device.
  - c) Digital photo-elastic measurement system.
  - d) all of the above.

